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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,473	02/06/2002	Yann Le Gallo	60,130-1342; 00MRA0381	7524

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EXAMINER

FLANDRO, RYAN M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 01/16/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,473

Applicant(s)

LE GALLO ET AL.

Examiner

Ryan M Flandro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the word “that” at page 10 ¶ 101 line 1, should be changed to “than”. Appropriate correction is required.

Claim Objections

2. Claim 7 is objected to because of the following informalities: the words “at least one” in line 1 of the claim should be followed by “of” for clarity and grammatical purposes. Appropriate correction is required.
3. Claim 16 is objected to because of the following informalities: the limitation “second fixing means” in line 3 of the claim should be changed to “second fixing **member**” for clarity and consistency with the other claims. Appropriate correction is required.
4. Claim 20 is objected to because of the following informalities: the phrase “the first, second, and third components having respective first, second and third holes” is repeated unnecessarily in lines 3-5 of claim 20. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 17 and 18 recite the limitation "the second threaded portion" in line 2 of each claim. There is insufficient antecedent basis for this limitation in the claims because no second threaded portion is previously recited in the instant claims or in claim 1 from which claims 17 and 18 depend.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross (US 1,986,981) in view of Tanaka et al (US 6,053,653) (Tanaka).

a. Claim 1. Ross (figure 4) clearly discloses an assembly including a first **3**, second **A** and third **B, 2** components and a first **1ax, 4** and second **1b** fixing members, the first **3**, second **A**, and third **B, 2** components having respective first, second and third holes, the first fixing member **1ax, 4** cooperating with the second hole and engaging the first hole to secure the first component **3** to the second component **A**, at least one of the fixing members [**1ax, 4**], **1b** cooperating with the third hole with the first fixing member **1ax, 4** engaging the second fixing member **1b** to secure the third component **B, 2** to the first component **3**, in which the first component **3** is situated between the second **A** and third **B, 2** components (see figure 4; column 1 lines 1-2, 17-22, 28-31; column 2 lines 43-44). Ross fails to disclose the first hole being a threaded hole, in which a first threaded portion of the first fixing member engages the first hole. Tanaka, however, teaches a first hole **52** being a threaded hole, in which a first threaded portion **65** of the first fixing member engages the first hole **52** (figure 6; column 8 lines 29-51) in order to secure the first component **2** to the second component **1**. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made modify the first hole and the first fixing member of Ross by providing that the first hole be a threaded hole and the first fixing member have a first threaded portion which engages the first hole in order to secure the first component to the second component as taught by Tanaka.

- b. Claim 2. Ross further shows a first feature **a** on the first component **3** which engages a first feature **a** on the second component **A** to align the first component **3** relative to the second component **A** (see figure 6; column 1 lines 23-35).
- c. Claim 3. Ross further shows the second component **A** having a first surface (opposite side of **A** from **a**) for engagement with the first fixing member **1ax, 4** to align the second component **A** relative to the first component **3** (see figure 6).
- d. Claim 4. Ross shows a first feature (opposite side of **B** from **b**) on the third component **B, 2** engaging a second feature (opposite side of **B** from **b**) of the first component **3** to align the first component **3** relative to the third component **B, 2** (see figure 6; column 1 lines 23-35).
- e. Claim 5. Ross discloses that the first feature of at least one of the components **3, A, B** is a recess (figure 6; column 1 line 31).
- f. Claim 6. Ross discloses that the first feature of at least one of the components **3, A, B** is a projection (figure 6; column 1 line 30).
- g. Claim 7. Ross discloses that the first feature (opposite side of **B** from **b**) of the third component **B, 2** is a recess (figure 6; column 1 line 31).
- h. Claim 8. Ross further discloses that second feature (opposite side of **B** from **b**) of the first component **3** is a projection (figure 6; column 1 line 30).
- i. Claim 9. Ross further shows that at least one of the first feature **a** of the first component **3** and the first feature **a** of the second component **A** is contiguous with at least one of the holes (see figure 6).

- j. Claim 10. Ross further shows at least one of the first feature (opposite side of **B** from **b**) of the third component **B, 2** and the second feature (opposite side of **B** from **b**) of the first component **3** is contiguous with at least one of the holes (see figure 6).
- k. Claim 11. Ross further shows a first feature (opposite side of **B** from **b**) on the third component **B, 2** engages a second feature (opposite side of **B** from **b**) of the first component **3** to align the first component **3** relative to the third component **B, 2** and the first **a** and second (opposite side of **B** from **b**) features of the first component **3** are on opposite sides of the first component **3** and are aligned (see figure 6; column 1 lines 29-31).
- l. Claim 12. Ross discloses the first feature **a** of the first component **3** is a recess and the second feature (opposite side of **B** from **b**) of the first component **3** is a projection (figure 6; column 1 lines 29-31).
- m. Claim 13. Ross discloses that the first component **3** is made from metal (column 1 lines 1-2). As to the latter part of the claim, the method of forming the first hole is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.
- n. Claim 14. Ross further shows the third component **B, 2** having a first surface (wall of hole through **2**) for engagement with the first **1ax, 4** fixing member to align the third component **B, 2** relative to at least one of the first **3** and second **A** components.
- o. Claim 15. Ross shows the first component **3** sealed relative to the second component **A** and the first component **3** sealed relative to the third component **B** (see figure 6).

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p. Claim 16. Although the combination of Ross and Tanaka does not explicitly include forces acting on the first fixing member preventing rotation of the first fixing member relative to the first component during securing and releasing of the third component by the second fixing [member], this would be inherent to the combination because upon tightening of the second fixing [member] **1b** to the first fixing member **1ax**, **4** there would be a resulting friction force between the first fixing member **1ax**, **4** and the first component **3** thus preventing relative rotation between the two features. Note that where there is reason to believe that a functional limitation asserted to be critical to establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, Applicant may be required to prove that the subject matter shown in the prior art does not possess the characteristic relied upon. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Hallman, 655 F.2d 212, 215, 210 USPQ 609, 611 (CCPA 1981); In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596-97 (CCPA 1980); In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977); In re Ludtke, 441 F.2d 660, 664, 169 USPQ 563, 566 (CCPA 1971); In re Swinehart, 439 F.2d 210, 213, 169 USPQ 226, 229 (CCPA 1971).

q. Claim 17. Ross fails to disclose a first threaded portion [of the first fixing member] having a diameter which is greater than the diameter of the second threaded portion [of the first fixing member]. Tanaka, however, teaches a first **33** and second **35** threaded portions wherein the first threaded portion **33** [of the first fixing member **3**] has a diameter which is greater than the diameter of the second threaded portion **35** [of the

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first fixing member **3**] in order to more easily achieve accurate alignment between two or more members **1, 2** (see figures 1 and 3; column 4 lines 55-61).

r. Claim 19. Ross (figure 4) clearly discloses an assembly including a first **3**, second **A** and third **B, 2** components and a first **1ax, 4** and second **1b** fixing members, the first **3**, second **A**, and third **B, 2** components having respective first, second and third holes, the first fixing member **1ax, 4** cooperating with the second hole and engaging the first hole to secure the first component **3** to the second component **A**, at least one of the fixing members [**1ax, 4**], **1b** cooperating with the third hole with the first fixing member **1ax, 4** engaging the second fixing member **1b** to secure the third component **B, 2** to the first component **3**, in which the first component **3** is situated between the second **A** and third **B, 2** components (see figure 4; column 1 lines 1-2, 17-22, 28-31; column 2 lines 43-44).

i. Ross fails to disclose the first hole being a threaded hole, in which a first threaded portion of the first fixing member engages the first hole.

ii. Tanaka, however, teaches a first hole **52** being a threaded hole, in which a first threaded portion **65** of the first fixing member engages the first hole **52** (figure 6; column 8 lines 29-51) in order to secure the first component **2** to the second component **1**. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made modify the first hole and the first fixing member of Ross by providing that the first hole be a threaded hole and the first fixing member have a first threaded portion which engages the

first hole in order to secure the first component to the second component as taught by Tanaka.

iii. Further, as to the steps of assembling the first and second component to form a subassembly; and assembling the third component to the subassembly, the combination of Ross and Tanaka as set forth above, would include these steps. Specifically, the assembly of Ross would require assembling the first **3** and second **A** components to form a subassembly; and then assembling the third component **B, 2** to the subassembly (see figure 4). Under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification, it can be assumed the device will inherently perform the same process. *In re King*, 802 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore, these steps would be inherent to the combination of Ross and Tanaka as set forth above.

s. Claim 20. The combination of Ross and Tanaka as set forth above includes each limitation recited in claim 20 except for explicit disclosure of the steps of removing the second fixing member, removing the third component, replacing the third component, and replacing the second fixing member. Nevertheless, a process of replacing the third component **B, 2** of Ross would include removing the second fixing member **1b**, removing the third component **B, 2**, replacing the third component **B, 2**, and replacing the second fixing member **1b** (see figure 4). Note that under the principles of inherency, if a prior

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art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification, it can be assumed the device will inherently perform the same process. *In re King*, 802 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore, these steps would be inherent to the combination of Ross and Tanaka as set forth above.

10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross and Tanaka, as applied to claim 1, further in view of Clover, Jr. (US 6,126,355) (Clover). The combination of Ross and Tanaka includes a second threaded portion (Ross feature 1, Tanaka feature 35) having a pitch which is substantially equal to the pitch of the second fixing member (Ross feature 1b, Tanaka feature 24). The combination of Ross and Tanaka fails to include the first threaded portion having a pitch which is different from the pitch of the first hole. Clover, however, teaches that it is common in the art to use a multi-threaded arrangement in which the screw threads at different locations have different pitches to enable locking of the assembly at different axial positions (column 1 lines 50-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made modify the combination of Ross and Tanaka to include the first threaded portion having a pitch which is different from the pitch of the first hole in order to enable locking of the assembly at different axial positions as taught by Clover.

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Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to joining pieces extending through aligned openings in plural members:

U.S. Pat. Pub. No. US 2002/0100220 A1 to Lawrie et al.

U.S. Pat. Pub. No. US 2002/0040554 A1 to Blume et al.

U.S. Patent 5,996,872 to Wasek et al.

Foreign Patent GB 1,154,293 to Ford Motor Co.


Foreign Patent GB 1,386,078 to Arthur et al.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M Flandro whose telephone number is (703) 305-6952. The examiner can normally be reached on 8:30am - 5:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Ryan M. Flandro
January 13, 2003


Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670